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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/285,773	04/05/1999	GARRY A. MERCALDI	M4065.165/P1	4121
7590 04/14/2004			EXAMINER	
THOMAS J D'AMICO			UMEZ ERONINI, LYNETTE T	
DICKSTEIN SHAPIRO MORIN & OSHINSKY			ART UNIT	
2101 L STREET NW			PAPER NUMBER	
WASHINGTON, DC 200371526			1765	

DATE MAILED: 04/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/285,773

Applicant(s)

MERCALDI ET AL.

Examiner

Lynette T. Umez-Eronini

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9,13-15,22-27,33-35,39-41,83 and 89-93 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 83 and 90-93 is/are allowed.
- 6) ☒ Claim(s) 1,6,9,13-15,22,27,33-35,39-41, and 89 is/are rejected.
- 7) ☒ Claim(s) 2-5 and 23-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This communication is in response to Applicants' Amendment filed 1/24/2004. Applicants presented persuasive arguments (see pages 7-13 of Remarks) to overcome the 112(1) rejection of claims 1, 9, 22, 39, 83, and 89-93, which contained subject matter that was not described in the Specification; the 112(2) rejection of claims 39-41, which lack antecedent basis; the 102(b) rejection of claims 1-6, 22-27, and 83 over Aoki (US 5,556,425); and the 103(a) rejection of claims 13-15, 33-35, and 39-41 over Aoki (US '425) in view of Uchida et al. (US 5,307,296). A new Office Action is presented herein.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 39-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 39, lines 2-3, "... consisting essentially of: ... a nonaqueous composition comprising of ..." is indefinite because it is unclear whether the claim is opened or closed to other components.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 6, 9, 22, 27, and 89 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogi et al (US 5,595,384).

Ogi teaches, "For the development which follows exposure, a solution containing hydrochloric acid, nitric acid, or sulfuric at a concentration in the range of 0.1 to 20 weight % by weight in IPA . . . can be used as a solvent" (column 7, line 66 – column 8, line 2), which reads on,

An etching composition consisting essentially of: a non-aqueous composition of an alcohol and at least two inorganic acids, wherein one of said inorganic acids is selected from the group consisting of sulfuric acid, **in claims 1, 9, 22, and 89**; and said alcohol is a C₂-C₆ alcohol, **in claims 6 and 27**. Since Ogi uses the same chemical composition as that of the claimed invention then using Ogi's composition in the same manner as the claimed invention would inherently result in an etching composition consisting essentially of the chemicals as recited in claims 1, 9, 22, 83 and 89.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 13-15 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogi (US '384), as applied respectively to claims 1 and 22.

Ogi differs in failing to teach the volume ratio of alcohol to a first acid to a second acid as specified in claims 13-15 and 33-35.

It would have been obvious to one having ordinary skill in the art at the time of the claimed invention to use a variety of volume ratios of alcohol to a first acid to a second acid, including those specified in applicants' claims for the purpose of obtaining the claimed invention.

Allowable Subject Matter

8. Claims 2-5 and 23-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 83 and 90-93 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter: No prior art teaches and suggests it obvious in having an etching composition consisting essentially of:

a non-aqueous composition of an alcohol wherein said alcohol is a polyhydric alcohol, in claims 2-5 and 23-26, along with the other limitations of base claim 1 and 22, respectively;

a non-aqueous composition of propylene glycol and at least two inorganic acids wherein one of said inorganic acids is selected from the group consisting of hydrofluoric, phosphoric, sulfuric, boric, carbon, perchlore, and sulfurous acid, in claim 83;

a non-aqueous composition of an alcohol, boric acid, and at least another inorganic acid, in claim 90;

a non-aqueous composition of an alcohol, perchloric acid, and at least another inorganic acid, in claim 91;

a non-aqueous composition of an alcohol, carbonic and at least another inorganic acid, in claim 92; and

a non-aqueous composition of an alcohol, sulfurous acid, and at least another inorganic acid, in claim 93.

Art Unit: 1765

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynette T. Umez-Eronini whose telephone number is 571-272-1470.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571-272-1465.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ltue

March 29, 2004

NADINE G. NORTON
SUPERVISORY PATENT EXAMINER

